AMENDMENTS TO THE CLAIMS

This listing of the claims replaces all prior listings and versions:

1 to 7. (canceled).

8. (currently amended): A method of generating a density calibration curve, comprising the steps of

(a) providing an assembly ~~according to claim 1~~ comprising an x-ray film holder; x-ray film and a wedge-shaped calibration phantom having length (L) and varying thickness (T) along the length;

(b) ~~to produce~~ producing an x-ray image of an anatomical structure, wherein the x-ray image comprises the calibration phantom;

~~(b)~~ (c) measuring attenuation at a multitude of points in the x-ray image of the calibration phantom, wherein each point is at known distance from a selected part of the phantom; ~~thereby~~

(d) measuring attenuation of at least one point of known density in the x-ray image of the anatomical structure; and

(e) generating a calibration curve that describes the relationship between ~~measured~~ attenuation measured in (c) and (d) and material thickness.

9. (currently amended): A method of generating a density calibration curve, comprising the steps of

(a) providing an assembly ~~according to claim 7~~ comprising an x-ray film holder; x-ray film and a wedge-shaped calibration phantom having length (L) and varying thickness (T) along the length and wherein the thickness of calibration phantom varies non-linearly along its length;

(b) ~~to produce~~ producing an x-ray image of an anatomical structure, wherein the x-ray image comprises the calibration phantom;

(c) ~~(b)~~ ~~generating~~ providing an expected calibration curve for the non-linear calibration phantom; ~~and~~

(d) ~~(c)~~ measuring attenuation at a multitude of points in the x-ray image of the calibration phantom;

(e) measuring attenuation of at least one point of known density in the x-ray image of the anatomical structure; and

(e) ~~(d)~~ aligning the points measured in steps ~~(c)~~ (d) and (e) with the expected calibration curve generated in step (c) ~~(b)~~, thereby generating a calibration curve for the image.

10. (original): The method of claim 8, further comprising the step of translating the calibration curve describing thickness into a curve describing calcium concentration.

11. (original): The method of claim 10, wherein the calibration phantom comprises aluminum and the calibration curve describes aluminum thickness.

12. (original): The method of claim 9, further comprising the step of translating the calibration curve describing thickness into a curve describing calcium concentration.

13. (original): The method of claim 12, wherein the calibration phantom comprises aluminum and the calibration curve describes aluminum thickness.

14. (original): A method of generating a reference calibration curve, comprising the step of calculating the average of calibration curves obtained according to the method of claim 8.

15. (original): A method of generating a reference calibration curve, comprising the step of calculating the average of calibration curves obtained according to the method of claim 9.

16. (currently amended): A method of generating a density calibration curve, comprising the steps of
(a) generating a digital x-ray image of an anatomic structure that includes a wedge-shaped calibration phantom having length (L) and varying thickness (T) along the length;
(b) generating an expected calibration curve; and
(c) measuring attenuation at a multitude of points in the x-ray image ~~of the~~ including the calibration phantom;
(d) measuring attenuation of at least one point of known density in the x-ray image of the anatomical structure; and
~~(d)~~ (e) aligning the points measured in steps (c) and (d) with the expected calibration curve generated in step (b), thereby generating a calibration curve for the image.

17. The method of claim 16, further comprising the step of translating the calibration curve describing thickness into a curve describing calcium concentration.

18. The method of claim 17, wherein the calibration phantom comprises aluminum and the calibration curve describes aluminum thickness.

19 to 24. (canceled).

25.   The method of claim 8, wherein the x-ray image is a dental x-ray.

26. (currently amended):   The method of claim 8, wherein the calibration curve ~~said comparing~~ is ~~performed~~ generated in a network environment.

27. (canceled).

28. (currently amended):   A method of diagnosing osteoporosis comprising the step of analyzing an x-ray image obtained by the method of claim 8 ~~1~~, wherein if the bone mineral density is below a reference standard, osteoporosis is diagnosed.

29. (currently amended):   A method of treating osteoporosis comprising diagnosing osteoporosis according to the method of claim 28 and administering one or more anti-resorptive agents or one or more anabolic agents.

30.   (canceled).

31. (new): The method of claim 8, wherein, in step (d), the at least one point of known density in the anatomical structure is in muscle, fat, or air.

32. (new): The method of claim 31, wherein the fat is subcutaneous fat.

33. (new): The method of claim 9, wherein, in step (e), the at least one point of known density in the anatomical structure is in muscle, fat, or air.

34. (new): The method of claim 33, wherein the fat is subcutaneous fat.